

Claims Listing

1. (currently amended) A process for increasing the molecular weight and/or for the modification of a polycondensate, which process comprises adding to the polycondensate

a) at least one bis-acyllactam and

b1) at least one ~~phosphite, phosphinate or phosphonate~~[[,]] ~~or~~

b2) ~~at least one benzofuran-2-one type compound or~~

b3) ~~at least one phosphite, phosphinate or phosphonate and one benzofuran-2-one type compound and~~

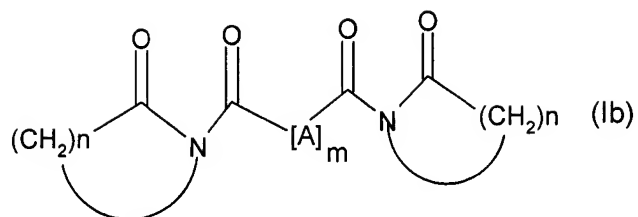
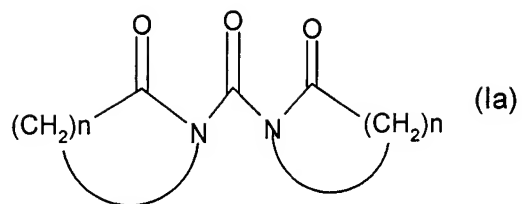
processing the mixture in the melt.

2. (previously presented) A process according to claim 1 wherein the polycondensate is an aliphatic or aromatic polyester, an aliphatic or aromatic polyamide or polycarbonate or a blend or copolymer thereof.

3. (currently amended) A process according to claim 1 wherein the polycondensate is polyethylene terephthalate~~terephthalate~~ (PET), polybutylene terephthalate~~terephthalate~~ (PBT), polyethylenenaphthenate (PEN)~~[[,]] or a copolyester~~[[,]] ~~PA-6, PA-6,6 or a polycarbonate containing bisphenol A, bisphenol Z or bisphenol F linked via carbonate groups.~~

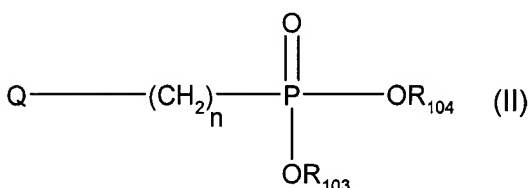
4. (currently amended) A process according to claim 1 wherein the polycondensate is polyethylene terephthalate~~PET~~ or polybutylene terephthalate~~PBT~~ or a copolymer of polyethylene terephthalate~~PET~~ or polybutylene terephthalate~~PBT~~.

5. (currently amended) A process according to claim 1 wherein the bis-acyllactams are~~is~~ of formula Ia or Ib



wherein A is C₁-C₁₈alkylene, C₂-C₁₈alkylene interrupted by at least one oxygen atom, C₁-C₁₈alkenylene, phenylene, phenylene-C₁-C₁₈alkylene, C₁-C₁₈alkylene-phenylene or C₁-C₁₈alkylene-phenylene-C₁-C₁₈alkylene;
 m is 0 or 1 and
 n is a number from 3 to 12.

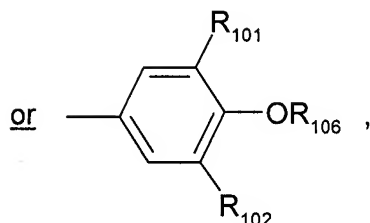
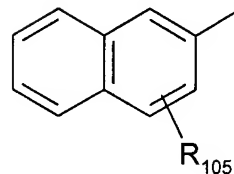
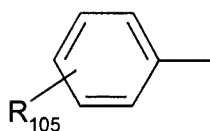
6. (currently amended) A process according to claim 1 wherein the phosphonates are of formula II



wherein

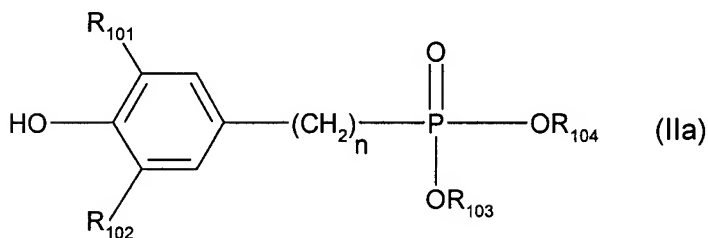
R₁₀₃ is H, C₁-C₂₀alkyl or unsubstituted or C₁-C₄alkyl-substituted phenyl or naphthyl,
 R₁₀₄ is hydrogen, C₁-C₂₀alkyl or unsubstituted or C₁-C₄alkyl-substituted phenyl or naphthyl;
 or is M^{r+} / r,
 M^{r+} is an r-valent metal cation or the ammonium ion,
 n is 0, 1, 2, 3, 4, 5 or 6 and
 r is 1, 2, 3 or 4;

Q is hydrogen, $-X-C(O)-OR_{107}$ or a radical



R_{101} is isopropyl, tert-butyl, cyclohexyl, or cyclohexyl which is substituted by 1-3 C_1-C_4 alkyl groups,
 R_{102} is hydrogen, C_1-C_4 alkyl, cyclohexyl, or cyclohexyl which is substituted by 1-3 C_1-C_4 alkyl groups,
 R_{105} is H, C_1-C_{18} alkyl, OH, halogen or C_3-C_7 cycloalkyl;
 R_{106} is H, methyl, trimethylsilyl, benzyl, phenyl, sulfonyl or C_1-C_{18} alkyl;
 R_{107} is H, C_1-C_{10} alkyl or C_3-C_7 cycloalkyl and
X is phenylene, C_1-C_4 alkyl group-substituted phenylene or cyclohexylene.

7. (currently amended) A process according to claim 6 wherein the phosphonates are of formula IIa

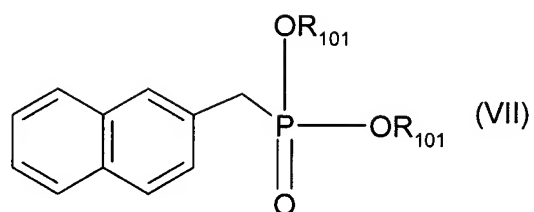
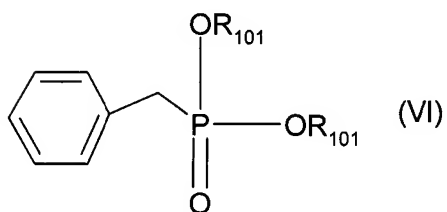
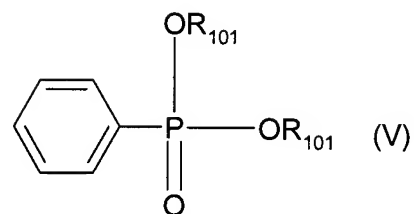
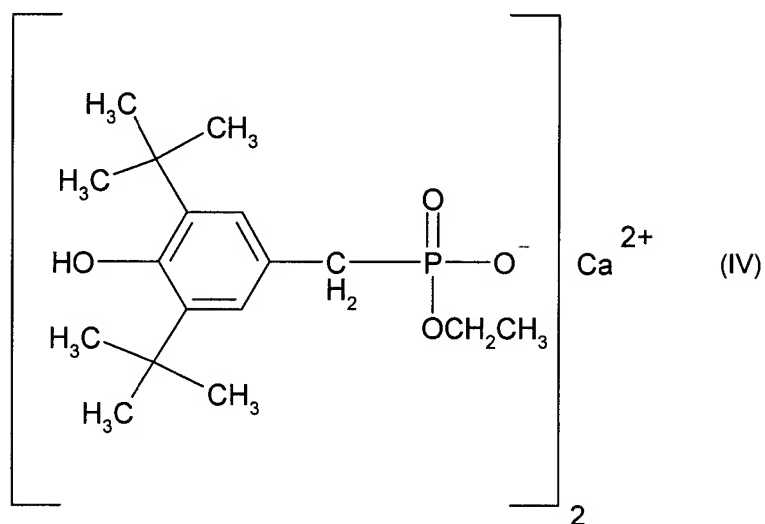
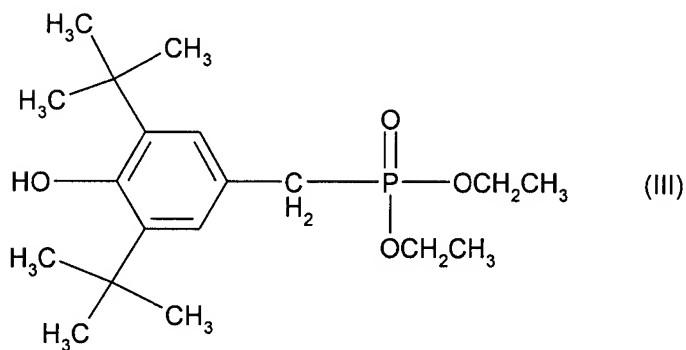


wherein

R_{101} is H, isopropyl, tert-butyl, cyclohexyl, or cyclohexyl which is substituted by 1-3 C_1-C_4 alkyl groups,
 R_{102} is hydrogen, C_1-C_4 alkyl, cyclohexyl, or cyclohexyl which is substituted by 1-3 C_1-C_4 alkyl groups,
 R_{103} is C_1-C_{20} alkyl or unsubstituted or C_1-C_4 alkyl-substituted phenyl or naphthyl,
 R_{104} is hydrogen, C_1-C_{20} alkyl or unsubstituted or C_1-C_4 alkyl-substituted phenyl or naphthyl;
or is M^{r+} / r;
 M^{r+} is an r-valent metal cation,

r is 1, 2, 3 or 4 and
n is 1, 2, 3, 4, 5 or 6.

8. (currently amended) A process according to claim 6 wherein the phosphonates are of formula III, IV, V, VI or VII



wherein the R_{101} are each independently of one another hydrogen or M^{r+} / r.

9-13. (canceled)

14. (original) A process according to claim 1 wherein the bis-acyllactam is used in an amount of 0.01 to 5 % by weight based on the weight of the polycondensate.

15. (currently amended) A process according to claim 1 wherein the ~~phosphite, phosphinate or~~ at least one phosphonate is used in an amount of 0.01 to 5 % by weight based on the weight of the polycondensate.

16. (canceled)

17. (currently amended) A process according to claim 1 wherein the ratio of the at least one bis-acyllactam to b1) the at least one ~~phosphite, phosphinate or phosphonate or to b2) the benzofuran-2-one type compound or to b3) the sum of all~~ is from 1:10 to 5:1.

18. (original) A process according to claim 1 wherein the maximum mass-temperature of the melt is from 170° to 320° C.

19. (original) A process according to claim 1 wherein an oxazoline compound is additionally present.

20. (currently amended) A composition comprising

a) a polycondensate;

b) at least one bis-acyllactam and

c1) at least one ~~phosphite, phosphinate or phosphonate~~ **[[;]]** or

~~e2) at least one benzofuran-2-one type compound or~~

~~c3) at least one phosphite, phosphinate or phosphonate and one benzofuran-2-one type compound.~~

21. (previously presented) A polycondensate obtained by a process according to claim 1.

22. (canceled)